

Serial No.: 08/840,947

IN THE CLAIMS:

Please cancel claims 2, 5, 17 and 18 without prejudice or disclaimer of subject matter.

Please amend claims 1, 3, 4, 6 and 14 to read as follows. Copies of these amended claims, marked to show changes from their prior versions, are set forth in Appendix A attached hereto.

1. (Twice Amended) A circuit comprising:

a first circuit having a first input and a first output, wherein said first output includes a function of a signal at said first input and also includes a first noise component resulting from noise experienced by said first circuit;

a second circuit, located proximal to said first circuit and having a second input and a second output, wherein said second output includes a function of a signal at said second input and also includes a second noise component resulting from noise experienced by said second circuit, and wherein the second noise component is approximately equal to the first noise component;

a subtractor circuit connected to said first circuit and to said second circuit to subtract said second output from said first output; and

a digital circuit located proximate to said first circuit and to said second circuit.

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7. (Three Times Amended) A circuit comprising:

a first circuit having a first input and a first output, wherein said first output includes a function of a signal at said first input and also includes a first noise component resulting from noise experienced by said first circuit;

a second circuit, located proximal to said first circuit and having a second input and a second output, wherein said second output includes a function of a signal at said second input and also includes a second noise component resulting from noise experienced by said second circuit, and wherein the second noise component is approximately equal to the first noise component; and

a subtractor circuit connected to said first circuit and to said second circuit to subtract said second output from said first output,

wherein said subtractor circuit further comprises a halving circuit which inputs a signal having an input amplitude and outputs the signal at one-half the input amplitude.

8. (Twice Amended) A circuit comprising:

a first circuit having a first input and a first output, wherein said first output includes a function of a signal at said first input and also includes a first noise component resulting from noise experienced by said first circuit;

a second circuit having a second input and a second output, wherein said second output includes an input signal component which is a function of a signal at said second input and also includes a second noise component resulting from noise

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cont  
E3  
experienced by said second circuit, wherein the input signal component is a null output, and wherein the second noise component is approximately equal to the first noise component;

a third circuit having a third input connected to said first output and a fourth input connected to said second output to subtract said second output from said first output; and

a digital circuit proximal to said first circuit and to said second circuit.

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(Amended) A circuit according to claim 8, wherein said first circuit, said second circuit, said third circuit, and said digital circuit are on a single integrated circuit chip.

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E5  
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14  
(Twice Amended) A noise cancellation method comprising the steps:  
supplying a first signal to a first circuit;  
reading a first output from said first circuit;  
supplying a signal to a second circuit which results in a null output from the second circuit, wherein said second circuit is located proximal to said first circuit;  
reading a second output from said second circuit; and  
combining said first output with said second output to produce a combinational output,